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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10 044,099	01 10 2002	Didier J. Martin	81745JJH	7527

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EXAMINER	
MENON, KRISHNANS	
ART UNIT	PAPER NUMBER

1723

DATE MAILED: 03/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.	Applicant(s)
10/044,099	MARTIN DIDIER J
Examiner	Art Unit
Krishnan S Menon	1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1)  Responsive to communication(s) filed on 26 March 2002.

2a)  This action is **FINAL**.      2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

4)  Claim(s) 1-10 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-10 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12)  The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

13)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All b)  Some \* c)  None of:

1.  Certified copies of the priority documents have been received.
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a)  The translation of the foreign language provisional application has been received.

15)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121

### Attachment(s)

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2

4)  Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mir et al (US 4,353,715) in view of Applicant's own admission of commercial product (page 6 line 16 – page 18 line 17 <sup>and</sup> example 5) and product brochure from Rhodia Orelis (printed from the internet).

Mir (715) teaches a method of recycling wash water from paint booths containing carbon particles (abstract; col 1 lines 35-59, col 2 lines 1-8, col 3 lines 27-33), passing the water through cellulose acetate (hydrophilic) ultrafiltration membrane (col 2 lines 9-23), wherein a permeate having wash water free of carbon particles and other solutes is obtained as in instant claim(s) 1. The water is recycled as in instant claim(s) 2 (col 2 lines 61-65); cellulose acetate polymer membrane as in instant claim(s) 5 (col 2 lines 8-21); tangential filtration as in instant claim(s) 6 (see 30-fig 1) and removes dyes as in instant claim s. 7 col 3 lines 5-23.

Mir (715) does not teach about surface charges on the membranes as in instant claim(s) 1, the molecular weight cutoff of the membranes as in instant claim(s) 8, and the contact angles as in instant claim(s) 3 and 4. However, applicant's own admission of a commercial membrane (Rhodia Orelis 3038, 3042 and 2050; see the product brochure printed from the internet site of Rhodia Orelis) teaches the membrane material and the molecular weight cutoffs. The surface charge characteristics and the contact angles of the hydrophilic membrane are properties of the membrane (specification page 6 line 16-page 8 line 21, example 5). It would be obvious to one of ordinary skill in the art at the time of invention to use the membrane of Rhodia Orelis for the process as taught by Mir (715) because the membrane is "well suited for industrial processes including paint and waste water treatment" according to Rhodia Orelis brochure.

2. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mir et al (US 4,353,715) in view of Applicant's own admission of commercial product as applied to claim 1 above, and further in view of Yamada et al (US 6,277,209 B1).

Mir in view of applicant's own admission of commercial product does not teach cleaning the membrane using hydrochloric acid. Yamada teaches cleaning the membrane with hydrochloric acid (col 2 lines 46-54). It would be obvious to one of ordinary skill in the art at the time of invention to use the teaching of Yamada to in the process of Mir to clean the calcium scale deposits on the membrane.

3. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mir et al (US 4,353,715) in view of Applicant's own admission of commercial product as applied to claim 1 above, and further in view of Hilgren (US 4,692,251) and Olsen (US 6,315,130 B1).

Mir in view of the applicant's disclosure of the commercial product does not teach use of a prefilter. Hilgren (251) teaches using a prefilter in ultrafiltration of fluids containing carbon particles col 1 lines 30-40, fig 2, col 5 lines 7-17), and Olsen teaches a polypropylene pleated filter for use as a prefilter (abstract). It would be obvious to one of ordinary skill in the art at the time of invention to use a prefilter in the teachings of Mir, as taught by Hilgren to reduce fouling and the load on the membrane (Hilgren col 5 lines 7-17), and would use the prefilter as taught by Olsen for its high efficiency (Olsen abstract).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S Menon whose telephone number is 703-305-5999. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L Walker can be reached on 703-308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

*Joseph Dodge*  
**JOSEPH DODGE**  
**PRIMARY EXAMINER**

Krishnan Menon  
Patent Examiner  
February 21, 2003